Amendments to the Claims:

- (Currently amended) A composition comprising calcium phosphate in the form of granules having an x-ray diffraction pattern characteristic of hydroxyapatite, wherein at least 90% of the particles are larger than 10 microns and 90% of the particles are smaller than 300 260 microns.
- 2. (Previously presented) Calcium phosphate according to claim 1, wherein the size of the granules expressed by the median diameter (d_{50}) is between 100 μm and 250 μm .
- (Previously presented) Calcium phosphate according to claim 1, wherein the apparent noncompressed density of the granules is at least 0.6.
- (Previously presented) Calcium phosphate according to claim 1, wherein the apparent compressed density of the granules is at least 0.7.
- $5. \qquad \text{(Currently amended) Calcium phosphate according to claim 1, wherein the} \\$ calcium phosphate granules have a BET specific surface area of between 10 and 100 m²/g and.

Claims 6-8 (Cancelled).

- 9. (Previously presented) Calcium phosphate according to claim 1, wherein the calcium phosphate has the following compressibility profile:
 - from 15 to 40 KPa for a compression of 30 KN,
 - from 10 to 25 KPa for a compression of 20 KN,
 - from 3 to 10 KPa for a compression of 10 KN.
- 10. (Previously presented) Calcium phosphate according to claim 1, wherein the calcium phosphate has a rate of disintegration in water of less than 60 seconds.
- 11. (Previously presented) Calcium phosphate according to claim 1, wherein the calcium phosphate has the following formula:

 $Ca_{5-x}(PO_4)_{3-x}(HPO_4)_x(OH)_{1-x}$

where x varies between 0 and 1.

- 12. (Withdrawn) A process for preparation of calcium phosphate granules having a hydroxyapatite x-ray diffraction pattern comprising (a) treating a brushite dicalcium phosphate suspension having a particle size such that 90% of the particles are smaller than 300 microns and 90% of them are larger than 10 microns with a basic solution, and (b) maintaining the pH of the suspension at least at 7.0, for a period of time sufficient to permit the transformation of brushite calcium phosphate into hydroxyapatite calcium phosphate.
- 13. (Withdrawn) The process according to claim 12, wherein the size of the particles of brushite dicalcium phosphate is such that the median diameter (d_{50}) is between 100 μ m and 250 μ m.
- 14. (Withdrawn) The process according to claim 12, wherein the base used in the basic solution is selected from the group consisting of: NaOH, KOH, and NH_4OH .
- 15. (Withdrawn) The process according to claim 12, wherein the pH of the brushite dicalcium phosphate suspension is maintained between 7.0 and 10.0.
- 16. (Withdrawn) The process according to claim 12, wherein the temperature of the brushite dicalcium phosphate suspension is maintained at greater than 50°C during the reaction with the basic solution.
- 17. (Withdrawn) The process according to claim 16, wherein the temperature of the brushite dicalcium phosphate suspension is maintained at is approximately 90 °C during the reaction with the basic solution.

- 18. (Withdrawn) The process according to claim 12, wherein a sufficient volume of the base solution is added to achieve 80 to 110% of the stoichiometric quantity expressed with respect to the brushite dicalcium phosphate.
- 19. (Withdrawn) The process according to claim 12, wherein the brushite dicalcium phosphate suspension is first heated to the chosen reaction temperature then the base solution is introduced while regulating the pH.
- 20. (Withdrawn) The process according to claim 12, wherein first the base solution is added so as to regulate the pH and then the medium is heated to the chosen reaction temperature.
- 21. (Withdrawn) The process according to claim 12, wherein the basic solution is added progressively while monitoring the pH to maintain the pH of the suspension within a predefined range.
- 22. (Withdrawn) The process according to claim 12, further comprising the step of separating the hydroxyapatite calcium phosphate from the aqueous solution by one of filtration or centrifugation.
- 23. (Withdrawn) The process according to claim 12, further comprising the step of drying the hydroxyapatite calcium phosphate at a temperature between 80 and 120 °C.

Claims 24-33 (Cancelled).